Department of Commerce • National Oceanic & Atmospheric Administration • National Weather Service

#### NATIONAL WEATHER SERVICE INSTRUCTION 10-314

JULY 5, 2006

**Operations and Services** 

Marine And Coastal Weather Services, NWSPD 10-3

MARINE WEATHER STATEMENTS

**NOTICE:** This publication is available at: http://www.nws.noaa.gov/directives/.

**OPR:** OS21 (R. May) Certified by: OS21 (T. Pierce)

**Type of Issuance:** Routine

**SUMMARY OF REVISIONS:** This directive supersedes NWSI 10-314, dated December 23, 2004. This directive includes the following changes:

- Apply experimental Valid Time Event Code (VTEC) to product format and examples for long duration MWSs issued with the Interactive Forecast Preparation System (IFPS) Graphical Hazards Generation (GHG) application. The VTEC is not applied to examples for WarnGen created MWSs for short duration non-severe events. Note: VTEC in WarnGen created MWSs used as follow-up to Special Marine Warnings has been operational since February 8, 2005 and these types of MWS examples do contain VTEC.
- 2. For IPFS GHG created MWSs, include the marine zone names in each Marine Weather Statement (MWS) segment header.

Date

signed June 21, 2006

Dennis H. McCarthy Director, Office of Climate, Water, and Weather Services

## MARINE WEATHER STATEMENTS

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- 1. <u>Introduction</u>. This procedural instruction provides detailed information on the Marine Weather Statement (MWS) product issued by Weather Forecast Offices (WFOs) and Weather Service Offices (WSOs) to describe ongoing or potential marine weather hazards or to cancel a Special Marine Warning (SMW). MWSs also provide the public with follow-up information to Special Marine Warnings (SMW) (reference NWSI 10-313).
- 2. Marine Weather Statement (product category MWS).
- 2.1 <u>Mission Connection</u>. MWSs provide the public with detailed marine weather information describing non-severe, but potentially hazardous, conditions and information for a variety of conditions not covered by warnings or routine forecasts. MWSs also provide follow-up information to a Special Marine Warning (SMW) including cancellation of all or part of the SMW.

### 2.2 <u>Issuance Guidelines</u>.

- 2.2.1 <u>Creation Software</u>. WFOs use the Advanced Weather Interactive Processing System (AWIPS) WarnGen application to cancel, update, or expire SMWs or for non-severe convective events. CONUS WFOs use AWIPS Interactive Forecast Preparation System (IFPS) Graphical Hazards Generation (GHG) application to create MWSs for long term events and short term non-convective events. OCONUS WFOs and WSOs will use regionally approved software.
- 2.2.2 <u>Issuance Criteria</u>. WFOs and WSOs will issue MWSs to provide notification when a Special Marine Warning will expire or has expired, to cancel all or portions of an SMW, or to provide updates to the SMW.

WFOs and WSOs should issue the Marine Weather Statement to discuss ongoing hazards affecting, or expected to affect, the marine community. Each NWS office having coastal waters or Great Lakes forecast responsibility (Reference NWSI 10-302) will issue MWSs as necessary. MWSs are not issued for the offshore or high seas areas.

<u>Non-Severe Short-term Wind Events</u>. Forecasters may issue MWSs to describe short duration, non-severe, but potentially hazardous conditions, in which sustained winds or gusts to 33 knots are expected for 2 hours or less.

<u>Non-Severe Long-term Events</u>. Forecasters may issue MWSs to provide details on significant conditions that affect marine operations <u>prevailing for periods exceeding 2 hours</u>. For example: low-water levels, dense fog, hazardous materials spills, trends for increasing and/or decreasing wind and wave/seas conditions, ashfall from volcanoes or forest fires, or to advise for the potential development of warning conditions. Headlines for events may be manually inserted to describe the conditions associated with non-severe long-term events.

Forecasters may issue MWSs during coastal or lakeshore flood events to provide information specifically relating to mariners. WFOs may also issue MWSs to alert mariners of very significant weather features expected in the 3 to 5 day forecast period.

<u>Ice Changes</u>. WFOs and WSOs should issue MWSs to inform mariners of weather events likely to impact the formation or destruction of ice.

- 2.2.3 <u>Issuance Time</u>. The Marine Weather Statement is a non-scheduled, event-driven product issued by WFOs and WSOs..
- 2.2.4 <u>Valid Time</u>. The Marine Weather Statement is valid from the time of issuance until the expiration time.
- 2.2.5 <u>Universal Geographic Code (UGC)</u>. The Marine Weather Statement will contain <u>marine</u>-based zone UGC codes.
- 2.2.6 <u>Product Expiration Time</u>. The product expiration time is not more than 15 minutes after the warning or expiration time of SMWs; and not more than 12 hours after the time of issuance for other events described in the issuance criteria section.
- 2.3 <u>Technical Description</u>. The Marine Weather Statement will follow the format and content described in this section.
- 2.3.1 Mass News Disseminator Broadcast Line. None.
- 2.3.2 <u>Mass News Disseminator (MND) Header</u>. The Marine Weather Statement MND Header is "MARINE WEATHER STATEMENT".
- 2.3.3 <u>Content.</u> WFOs and WSOs will issue MWSs to cancel all or portions of a Special Marine Warning. NWS offices should issue MWSs for ongoing or imminent weather conditions less than warning criteria. Offices should issue MWSs to report funnel clouds either forecast by the office or reported to the office by external sources. Offices should use headlines to highlight important information related to the issuance of MWSs. MWSs will follow the format described in section 2.3.4.
- 2.3.4 <u>Format</u>. The format of the Marine Weather Statement can be seen in Figure 1. The MWS is a segmented product. Please reference NWSI 10-1702, *Universal Geographic Code (UGC)*, for additional information on product segmentation. For detailed VTEC information, please reference NWSI 10-1703, *Valid Time Event Code (VTEC)*. For more detailed product format information consult NWSI 10-1701, *Text Product Formats and Codes*.

This product is available in industry standard encoding and languages, and may include, but not be limited to, American Standard Code for Information Interchange, Extensible Markup Language, Wireless Markup Language and HyperText Markup Language.

(WMO HEADER)(UTC ISSUANCE DATE TIME) (AWIPS ID)

MARINE WEATHER STATEMENT
NATIONAL WEATHER SERVICE (CITY)(STATE)
(ISSUANCE TIME) AM/PM (LOCAL TIME ZONE) (DAY) (DATE)

(AREAL UGC CODE[S])-(EXPIRATION TIME)-(VTEC STRING) [If MWS is follow-up to SMW or is created by GHG] (MARINE ZONE NAMES [If MWS is created by GHG)) (ISSUANCE TIME) AM/PM (LOCAL TIME ZONE) (DAY) (DATE)

...HEADLINE (If Needed)...

NARRATIVE TEXT.

LAT...LON [If MWS is created by WarnGen] [Recommended list of latitude/longitude points outlining the forecaster-drawn area of greatest impact]

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FORECASTER NAME (Optional)

Figure 1. Marine Weather Statement (MWS) Format

2.4 <u>Updates, Amendments and Corrections</u>. The Marine Weather Statement should be updated or corrected as needed.

#### **APPENDIX A - Examples of the Marine Weather Statement**

#### Examples of Marine Weather Statements (MWS):

1. The MWS issued for weather conditions below SPECIAL MARINE WARNING criteria created by WarnGen (VTEC not included in this example due to software not yet ready):

FZUS71 KOKX 181411 MWSOKX

MARINE WEATHER STATEMENT NATIONAL WEATHER SERVICE NEW YORK NY 1010 AM EDT THU AUG 18 2005

ANZ330-335-181600-1010 AM EDT THU AUG 18 2005

...THUNDERSTORMS MOVING EASTWARD ACROSS LONG ISLAND SOUND...

AT 1005 AM EDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED THUNDERSTORMS PRODUCING DANGEROUS LIGHTNING AND GUSTY WINDS OVER LONG ISLAND SOUND...WEST OF A LINE FROM NEW HAVEN CT TO PORT JEFFERSON NY...MOVING EAST AT 15 MPH.

MARINERS CAN EXPECT GUSTY WINDS UP TO 30 KNOTS...LOCALLY HIGHER WAVES...AND FREQUENT LIGHTNING STRIKES. BOATERS SHOULD SEEK SAFE HARBOR IMMEDIATELY UNTIL THIS STORM PASSES.

LAT...LON <placeholder for coordinates>

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#### 2. The informational MWS created with IFPS GHG:

FZUS74 KBRO 012044 MWSBRO

MARINE WEATHER STATEMENT NATIONAL WEATHER SERVICE BROWNSVILLE TX 345 PM CDT SUN MAY 1 2005

GMZ130-150-155-170-175-012345-

/X.NEW.KBRO.MA.S.0026.050501T2045Z-050501T2345Z/

LAGUNA MADRE-

COASTAL WATERS FROM PORT MANSFIELD TO RIO GRANDE RIVER TX OUT 20 NM-

COASTAL WATERS FROM BAFFIN BAY TO PORT MANSFILED TX OUT 20 NM-

COASTAL WATERS FROM PORT MANSFIELD TO RIO GRANDE RIVER TX FROM 20 TO 60 NM-

COASTAL WATERS FROM BAFFIN BAY TO PORT MANSFIELD TX FROM 20 TO 60 NM-

345 PM CDT SUN MAY 1 2005

...A STRONG COLD FRONT HAS PASSED SOUTH OF THE LOWER TEXAS COASTAL WATERS...

A LATE SEASON COLD FRONT HAS JUST MOVED THROUGH THE LOWER TEXAS COASTAL WATERS. THE STRONGEST THUNDERSTORMS ARE NOW IN THE OPEN GULF TO THE EAST OF THE OFFSHORE WATERS. MARINERS OVER THE LAGUNA MADRE AND THE COASTAL WATERS OF DEEP SOUTH TEXAS SHOULD STILL EXPECT NUMEROUS SHOWERS AND THUNDERSTORMS TO CONTINUE DURING THE NEXT FEW HOURS...BUT DRIER WEATHER IS EXPECTED TO ARRIVE THIS EVENING. OCCASIONAL LIGHTNING AND HEAVY RAINFALL RESTRICTING VISIBILITY TO LESS THAN A MILE WILL REMAIN POSSIBLE.

WINDS BEHIND THE FRONT ARE EXPECTED TO PERSIST FROM THE NORTH AT 20 TO 30 KNOTS...WITH HIGHER GUSTS POSSIBLE. AT 200 PM...SEAS HAD RISEN TO 7 FEET AT THE BUOY 35 MILES EAST OF PORT MANSFIELD AND WERE STILL RISING. SMALL CRAFT ADVISORIES FOR WINDS AND SEAS ARE LIKELY THROUGH SUNDAY.

STAY TUNED TO NOAA WEATHER RADIO FOR THE LATEST WEATHER INFORMATION FROM YOUR NATIONAL WEATHER SERVICE OFFICE IN BROWNSVILLE.

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# 3. Special Marine Warning (SMW) and followup Marine Weather Statements created using WarnGen:

#### **Initial SMW:**

WHUS53 KLOT 232205 SMWCHI LMZ740-766-232300-/O.NEW.KLOT.MA.W.0034.050723T2204Z-050723T2300Z/

BULLETIN - IMMEDIATE BROADCAST REQUESTED SPECIAL MARINE WARNING NATIONAL WEATHER SERVICE CHICAGO IL 504 PM CDT SAT JUL 23 2005

THE NATIONAL WEATHER SERVICE IN CHICAGO

#### HAS ISSUED A

- \* SPECIAL MARINE WARNING FOR...
  WINTRHOP HARBOR TO WILMETTE HARBOR IL OVER LAKE MICHIGAN
  OUT TO MID LAKE
- \* UNTIL 6 PM CDT
- \* AT 455 PM CDT...NATIONAL WEATHER SERVICE DOPPLER RADAR INDICATED A LINE OF STRONG THUNDERSTORMS FROM NEAR RACINE WISCONSIN SOUTHWESTWARD INLAND TO NEAR WAUCONDA ILLINOIS...MOVING SOUTHEAST AT 30 MPH.

MARINERS SHOULD SEEK SAFE HARBOR IMMEDIATELY. IF CAUGHT ON OPEN WATER STAY BELOW DECK IF POSSIBLE...KEEP AWAY FROM UNGROUNDED METAL OBJECTS.

LAT...LON <placeholder for coordinates>

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#### MWS used to update the SMW:

FZUS73 KLOT 232230 MWSCHI

MARINE WEATHER STATEMENT NATIONAL WEATHER SERVICE CHICAGO IL 530 PM CDT SAT JUL 23 2005

LMZ740-766-232300-/O.CON.KLOT.MA.W.0034.000000T0000Z-050723T2300Z/ 530 PM CDT SAT JUL 23 2005

...SPECIAL MARINE WARNING REMAINS IN EFFECT FOR WINTRHOP HARBOR TO WILMETTE HARBOR IL OVER LAKE MICHIGAN OUT TO MID LAKE UNTIL 6 PM...

AT 525 PM...A LINE OF STRONG THUNDERSTORMS CONTINUED FROM NEAR RACINE WISCONSIN SOUTHWESTWARD INLAND TO NEAR WAUCONDA ILLINOIS. AT 523 PM...A MARINER REPORTED GOLFBALL SIZE HAIL ON LAKE MICHIGAN 5 MILES SOUTHEAST OF RACINE. THESE STORMS WILL CONTINUE MOVING SOUTHEAST AT 30 MPH.

LAT...LON <placeholder for coordinates>

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#### MWS used to cancel the SMW:

FZUS73 KLOT 232235 MWSCHI

MARINE WEATHER STATEMENT NATIONAL WEATHER SERVICE CHICAGO IL 535 PM CDT SAT JUL 23 2005

LMZ740-766-232300-/O.CAN.KLOT.MA.W.0034.000000T0000Z-050723T2300Z/ 535 PM CDT SAT JUL 23 2005

...SPECIAL MARINE WARNING FOR WINTRHOP HARBOR TO WILMETTE HARBOR IL CANCELLED...

A LINE OF THUNDERSTORMS FROM NEAR RACINE WISCONSIN SOUTHWESTWARD TO NEAR WAUCONDA ILLINOIS HAVE DISSIPATED. THEREFORE THE SPECIAL MARINE WARNING HAS BEEN CANCELED.

LAT...LON <placeholder for coordinates - last valid area of the polygon>

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#### MWS used to cancel part of the SMW:

FZUS73 KLOT 232235 MWSCHI

MARINE WEATHER STATEMENT NATIONAL WEATHER SERVICE CHICAGO IL 535 PM CDT SAT JUL 23 2005

LMZ740-232300-/O.CAN.KLOT.MA.W.0034.000000T0000Z-050723T2300Z/ 535 PM CDT SAT JUL 23 2005

...SPECIAL MARINE WARNING FOR WINTRHOP HARBOR TO WILMETTE HARBOR IL CANCELLED...

A LINE OF THUNDERSTORMS FROM NEAR RACINE WISCONSIN SOUTHWESTWARD TO NEAR WAUCONDA ILLINOIS HAVE MOVED EAST OVER THE OPEN LAKE. THEREFORE THE SPECIAL MARINE WARNING HAS BEEN CANCELED FOR NEARSHORE WINTRHOP HARBOR TO WILMETTE HARBOR IL.

LAT...LON <placeholder for coordinates> <valid area of the warning still in effect> \$\$

LMZ766-232300-/O.CON.KLOT.MA.W.0034.000000T0000Z-050723T2300Z/ 535 PM CDT SAT JUL 23 2005

...SPECIAL MARINE WARNING REMAINS IN EFFECT FOR LAKE MICHIGAN WINTHROP HARBOR IL EASTWARD TO MID POINT OF THE LAKE AND SOUTHWARD TO NEW BUFFALO MI BEYOND 5 NM OFF SHORE...

AT 530 PM...A LINE OF STRONG THUNDERSTORMS WAS NEAR THE MID POINT OF SOUTHERN LAKE MICHIGAN. AT 528 PM...A MARINER REPORTED BASEBALL SIZE HAIL ON LAKE MICHIGAN 15 MILES SOUTHEAST OF WAUKEGAN IL. THESE STORMS WILL CONTINUE MOVING SOUTHEAST AT 30 MPH.

LAT...LON <placeholder for coordinates> <valid area of the warning still in effect>

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#### MWS used to expire the SMW:

FZUS73 KLOT 232300 MWSCHI

MARINE WEATHER STATEMENT NATIONAL WEATHER SERVICE CHICAGO IL 600 PM CDT SAT JUL 23 2005

LMZ740-766-232315-/O.EXP.KLOT.MA.W.0034.000000T0000Z-050723T2300Z/ 600 PM CDT SAT JUL 23 2005

...SPECIAL MARINE WARNING FOR WINTRHOP HARBOR TO WILMETTE HARBOR IL OVER LAKE MICHIGAN OUT TO MID LAKE HAS EXPIRED...

A LINE OF THUNDERSTORMS FROM NEAR RACINE WISCONSIN SOUTHWESTWARD TO NEAR WAUCONDA ILLINOIS HAVE DISSIPATED. THEREFORE THE SPECIAL MARINE WARNING HAS BEEN ALLOWED TO EXPIRE.

LAT...LON <placeholder for coordinates - last valid area of the polygon>

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